

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/517,741  
Source: PCT  
Date Processed by STIC: 06/07/2005

# ***ENTERED***

**BEST AVAILABLE COPY**



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:19

Input Set : D:\original seq\_prot.TXT  
Output Set: N:\CRF4\06062005\J517741.raw

(page 6)

3 <110> APPLICANT: FOCKENS, John  
4 HARBECK, Nadia  
5 KOENIG, Thomas  
6 MAIER, Sabine  
7 MARTENS, John  
8 MODEL, Fabian  
9 NIMMRICH, Inko  
10 RUJAN, Tamas  
11 SCHMITT, Armin  
12 SCHMITT, Manfred  
13 LOOK, Maxime P.  
14 MARX, Almuth  
15 HOEFLER, Heinz  
17 <120> TITLE OF INVENTION: Method and nucleic acids for the improved treatment of  
breast cell  
18 proliferative disorders  
20 <130> FILE REFERENCE: 47675-93  
C--> 22 <140> CURRENT APPLICATION NUMBER: US/10/517,741  
C--> 22 <141> CURRENT FILING DATE: 2004-12-11  
22 <150> PRIOR APPLICATION NUMBER: PCT/EP2003/010881  
23 <151> PRIOR FILING DATE: 2003-10-01  
25 <150> PRIOR APPLICATION NUMBER: DE 10317955.0  
26 <151> PRIOR FILING DATE: 2003-04-17  
28 <150> PRIOR APPLICATION NUMBER: DE 10300096.8  
29 <151> PRIOR FILING DATE: 2003-01-07  
31 <150> PRIOR APPLICATION NUMBER: DE 10245779.4  
32 <151> PRIOR FILING DATE: 2002-10-01  
34 <160> NUMBER OF SEQ ID NOS: 2147  
26 <210> SEQ ID NO: 1  
37 <211> LENGTH: 2932  
38 <212> TYPE: DNA  
29 <213> ORGANISM: Homo Sapiens  
41 <400> SEQUENCE: 1  
43 gccagaaca aaatatatca agataaggaa aatttgtagt caagaataga aaaaaattat 60  
44 ggctttgaa tatgagttat taaagaaag tggaaacatc ctgagactat gcagtaaaaa 120  
45 acaaagtgat tttctcttc taaacttatg caataaactg ataggtaata tgtgaaagtc 180  
46 atagaatgta gactagagga tacaacaaac ctatttcctc tatgttcata agaagtaaga 240  
47 aaagctctga tgtgagttag cattgcttta caattttgaa ttgtgcagat tgcacgtact 300  
48 tttcctcagt ttgaagtaaa tagtggacag gaaaaaatat taaatgttgg cagtaaatat 360  
49 ggaaggaaat tacaactaat gtaatatgct aaacatgct atgtttatatt tactaatttg 420  
50 aattaaaatg taagaattta aaatgccctg gaaaaacacg ggcattgatc tgacgtctga 480  
51 agtttttaaa tattacacac ttgaaatag catttgtacc ttgaaatacc tgtctctata 540  
52 tattttttta aacttccttt ttctttcatt ccatttatca tcaataaaag gatgaacaga 600  
53 cgttaactcag aaactgtcaa gcatgctgaa gaaagaccac tgcagaaaaa tttctcctag 660

BEST AVAILABLE COPY

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:19

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

```
54 ccttttcaaa ggtgttagga agcagaaagg tgatacagaa ttggagaggt cggagttttt 720
55 gtattaactg tattaaatgc gaatcccagag aaaattttccc ttaactacgt cctgtagtta 780
56 tatggatatg aagacttatg tgaactttga aagacgtgtc tacataagtt gaaatgtccc 840
57 caatgattca gctgatgcgc gtttctctac ttgccccttcc tagagaggtg caacggaagc 900
58 cagaacattc ctcttgaaa ttcaacctgt ttccnagttt ctcgaggaat cagcattcag 960
59 tcaatccggg ccgggagcag tcatctgtgg tgaggctgat tggctgggca ggaacagcgc 1020
60 cggggcggtg gctgagcaca gccgcttcgc tctctttgcc acaggaagcc tgagctcatt 1080
61 cgagtagcgg ctcttccaag ctcaaagaag cagaggccgc tgttcggttc cttaggtct 1140
62 ttccactaaa gtccggagtat cttcttccaa aatttcacgt cttggtggcc gtccaagga 1200
63 gcgcgaggtg ggggcacgca aagctgggag ctactatggg acagttccca agtgtcaggc 1260
64 ttccagattt cctgaacttg gtcttcacgg gagaagggtc tcttgaggcg tggatagtgt 1320
65 gaagtccctc ggcaagtcca tggggacca gttggggttag atctagactc aggagctcct 1380
66 ggagcagcgc ccaaacccgta gtggcactgg accatgttgc ccggagcgcg cacagccgcg 1440
67 gcggtgcggg gacctgctct ctgagcccgc gggcggtggg tgggaggaag catcgccgcg 1500
68 ggcgactgga accgggaggg agaatcgac tggcgcgggg caaagtcag aacgcgctgc 1560
69 cagaccccca actctgcctt cgtggagatg ctggagacc cgcgcacagg aaagcccctg 1620
70 cagtgcctat cgcggccaga gcagctgggg catcaacggc gggcgctccc tcttactgct 1680
71 ctctggcttc gacgggggac tagagggttag tctcacctcc agcgcgcctg aggtcctatg 1740
72 atttggtcaa tgagctgcgg tttctcttca ggtcgggatg gatcttgaag gggaccgcaa 1800
73 tggaggagca aagaagaaga acttttttaa actgaacaat aaaaggtaac tagcttgttt 1860
74 cattttcata gttacatag ttgcgagatt tgagtaattt atttctagcc tccagctctg 1920
75 aaataaatga catgttgttg tttttaatta tttttaagaa acgcaagcta gcctttggaa 1980
76 tcaatatccc tgccttagagc agaagtttgt tggctgagtg gagcacagca tatgcatttt 2040
77 cctctgtctt tttgttctt cttttaatga ttacataat tttacatatt tatgaaatgg 2100
78 ggtacatgga agcgtttttt acatgcccg aatgtgtaat gatcaagtc gggatattga 2160
79 aggatacatc accttaggtt tatttcattt ctatgtgttg ataacattt aagtcttcta 2220
80 gctactttga aatatacaat atattgctaa ctgtagtcac cctcgtctgc tatcgaacat 2280
81 tggaaactta ttgacctat caaccgttct tagtcattca ccaacctctt ttcatttcac 2340
82 ctttttacc tcccggcct ctttccctta gtcttggtgt gcctctttct cagctttcct 2400
83 gcccagaca ggcggtatgt catatgtgt tctgtcttat gaacttctgc tttcaagtg 2460
84 gtgttggtcg cccacacgtg agccatagtc tgcgtgtgat ctgctctgtg gtccaggctc 2520
85 ttgcttccg taaatggcta tgtaaacatc gcgtttgtgg cctggctgat gagacagaag 2580
86 gtcaaaagta catttaggtt gtttaactgg aataaatatc tgtatataat attggtaatg 2640
87 taatcatata gggaaaataa ttattttaaag taaattttga tcatggtgct ctgcctttat 2700
88 agaatattta aaacttcact aaatagattc attgttagta gtaaattgta aaatagacta 2760
89 gtaagtttaa taatattaga aactgtaatg taaattataa gataaattag cttaaacacat 2820
90 taatactata agaaaccaag cttttcagtg taagagaaaa aatacaaatg tggaaatcaa 2880
91 atacattttt aaaaataatg ttaagtttga attagaaatt tcaatatgaa tt 2932
93 <210> SEQ ID NO: 2
94 <211> LENGTH: 7432
95 <212> TYPE: DNA
96 <213> ORGANISM: Homo Sapiens
98 <400> SEQUENCE: 2
100 atctgaagcc agagtccccc agaggagaaa gaggttggaat tgagaactca aggaatgctt 60
101 ggaagtgate gggctcgagc ccacctagga agaaacagag gctggagaca tgagactgtg 120
102 ttgctatttc ctctcatcaa ccttggggcc ctattgaggc cctaccacaa gcctggccct 180
103 gcagcccagt gactaggaga aattagacac aagataataa taacagcaat gatctttttt 240
104 tttttctctg gacggagtct tgccttttcg cccaggctgg actgcagtgg cgcgatctcg 300
105 gctcaatgca agctccacct cccaggttca cgccaltctc ctgcctcagc ctcccagta 360
```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:19

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

106	gctaggacta	caggcgccctg	ccaaccacgcc	tggctaattt	ttcatatttt	tagtagagat	420
107	gggggtttcac	cgtgttagcc	aagatggtct	caatctcctg	acctcgtgat	ccgcctgcct	480
108	cgccctccca	aagtgttggg	gttacaggca	tgagccaccg	cgccctggcca	acagcaatga	540
109	tcttttgagca	cctatatgtc	cagtctccac	ggtaagagct	ttcttcattt	tttgttttgt	600
110	tttgtttcaa	gacagagtct	tgctctgtca	cccaggctgg	agtgcagtgg	tgtgatcgcg	660
111	gctcactgca	gccttcactt	cccgggttca	agccattctc	ctgcctcagc	ctcccaagta	720
112	gctgggatta	caggcacgca	tcactacttc	tggctaattt	ttgtattttt	agtagggaca	780
113	gggttttttca	ccatgttggc	cagggttggc	tcaaactcct	ggcctcatat	gatctgcccc	840
114	cctcggtctc	ccaaagtgtc	gggattacag	gcgtgagcca	ctgcgccttt	ctttgtattt	900
115	gttcaagtaa	tatactgaaa	tatgtactgt	gcctcccact	ttatggagga	ggaaactgag	960
116	gccagcaaat	gaggctgtca	tgggaggttg	agacaggatt	tgaacctgcc	tcagtgcagg	1020
117	aggctcaaga	gcctctgtct	tctctcaggg	cactgtgtgg	gaggggtgaga	aggagggagg	1080
118	cccacagagg	catgacctct	gattgccact	gtcacctggg	ccctgctctc	tgaagtctct	1140
119	gccaagcggg	gagggtggccg	ggggagggcc	ctgctctgtg	cagcctcccc	tccccgggcc	1200
120	cgacaggttg	agcacagagg	gacagaggca	cggaaacccc	agaaatgtcc	ctcctcagaa	1260
121	acaggctcca	ggccctgcct	gccctgtgcc	tctgcgtgct	ggctcctggc	tgcattgggg	1320
122	gtgagaagaa	gtgggtggag	ggatgtgggg	cccacacctg	gtgggtgtga	gtgtggctgt	1380
123	gtgtcctgtg	gctctgtagc	cacgtgagac	atgagtacgg	agtgtgtgcg	tttcatggcg	1440
124	tgcttatgca	tgtgcgtgtc	ggggagtggt	tgtgtcggtg	gctgagagtg	aagtgtgaat	1500
125	gtcacattgg	tacaaactgg	gatcatctgt	gtgtgtgcac	gtgcgtgcgt	ggaagtggga	1560
126	gtatgcagtc	gtggtaaaaa	agtgcattgt	tgtgtgcata	tgtgtatttg	tgtgcacctg	1620
127	tctctctgtg	gggtatgtgt	gtgcaaaata	tttgagtgtg	tggacatgtg	tgaggggggtg	1680
128	agtgtgtgct	gggtgtgtacg	tctgtgtttt	gcataatgc	tttttttttt	tttttttgaga	1740
129	cggagtctca	ctctgtcacc	caggctggag	tgcagtggtg	gcagtgggtg	gatcttggct	1800
130	cactgcattca	tccgcctacc	cggttcaagg	gattctcctg	cctcagtcct	cagagtattt	1860
131	gggactacag	acacacgcca	ccatgcctgg	ctattttttt	tttttgagac	ggagtctcgc	1920
132	tctgttaacc	aggctggagt	gcagtggcgt	gatcttggct	cactgcaacg	tccgcctccc	1980
133	gggttcacgc	cattctcctg	cctcagcttc	cggagttagt	gggactacag	gagcccacca	2040
134	ccacgcctgg	ctaatttttt	gtatttttac	tagagacggg	gtttcgccgt	gttagccagg	2100
135	atgggtctcca	tatcctgacc	tctgtatccg	cctgcctcgg	ccttccaaag	tgctaggatt	2160
136	ataggcgtga	gccactgcgc	ctggccaatg	cctggctaata	ttttttatat	ttttggtaga	2220
137	gacaggggtt	tgccatgttg	cccaggctgg	tcttgaaatc	ctgacctcag	gtgatccgcc	2280
138	cgccttggcc	tcccaaaagt	ctgggattac	aggcatgagc	cacnacgccc	ggcnatgtac	2340
139	tttatgttaa	aatgggatca	tattctagat	cagcattatc	cagttagaaat	ttaaattttt	2400
140	aatacagggc	caggcacggg	ggctcatgcc	tgtaatccca	gcactttcgg	aggccgaggc	2460
141	gggtggatcg	caaggtcagg	agatttgaga	tcactctggc	taacagatgg	gtaaaaaccc	2520
142	atctctacta	aaaatacaaa	aaattagcca	tgcattgggt	catgcgcctg	tagtcccage	2580
143	tactcgggag	gctgaggccg	gagaatcact	tgaaccgggg	aggcagaggt	tgcagtgagc	2640
144	cgagatcgcg	ccactgcatt	ccaacctggg	tgacagagcg	agactccgtc	tgaaaaaaaa	2700
145	aaaaaattta	acacgtatgt	agacaatgtg	caaggcacca	ttccatgtgc	atcgtatgta	2760
146	gtaactctta	attctcacga	taaccttgag	gtagatatta	ttaccccggt	ctacaaaagg	2820
147	agaaacagtc	ctggggagac	aggataagtc	accggccaag	gcacacagct	agctacatgt	2880
148	ggcccccgcg	tgacggctgg	tctctgtagg	cgaaggcttg	tccagatgcg	tgggtagaag	2940
149	gtctggcccc	gaaagaggaa	ctgacagcaa	ggctaagcca	atgtctgccc	ctggggggcg	3000
150	aaagtcacct	cctgctctcc	ctccactgtc	cacagaggta	gctcagacag	ggtgggggtc	3060
151	acaggagaa	gaagggagaa	gggggttagt	cctgggcagc	aaaatcaggt	ggtgaaggga	3120
152	ggcatcgag	gatggcaatt	agagaggcca	ttagagggga	accacaggca	gacaggggtg	3180
153	caggagggac	tactgacaca	aggtgaagag	atggcccagc	cggacggggg	ggctcacatc	3240
154	tgtaatecca	gcatttttggg	agcccgaggc	gggtggatca	cttgagggtca	ggagttcgag	3300

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:19

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

```
155 gcccccaacat ggcaaaaaccc catctcttct aaaaaatacaa aaattagccg ggcattgatgg 3360
156 cagatgcctg taatccctgc tactcgggag gctgaggcag gaaaattgcc tgaatccagg 3420
157 aggtggagggt tgcaatgaga cgagatcatg acactgcact ccacctggg caacagagca 3480
158 agagactgac tctgtctcat aaaaaaaaaag aaaaaaagaaa aaaaaaaaga gatggctgat 3540
159 ggttaaagag gggttagcgg tcaggggaca cataagggtta aaggcaggag gcaagaggac 3600
160 tggcaggggg ctgccctgg gccaccggga gcgacacagg atgagcatgg agggaaaagg 3660
161 agaaggggat tctaggggcc cagcctaccc aagttgccct ctggttccac ctagcatgcc 3720
162 agccagaggc ccaggaagga accctgagcc cccaccacaa gctaaagatg agtcgctgga 3780
163 gcctggtgag gggcaggatg aaggagctgc tggagacagt ggtgaacagg accagagacg 3840
164 ggtggcaatg gttctggtga ggggtgtgctg ggtcgggtgg tgggagggga ctcttgggtc 3900
165 tgagggagga ggggctgggg cctggacccc tgagtctcag ggaggaggaa aggggtgggag 3960
166 tggggctgtg acccttaggt ctgggaggag tggagggtta gagctgagag caggaaacct 4020
167 taggtcacag agaggagcgg ataaatgggg cagagaacac ctggggagag ctggggcctc 4080
168 cactgtgatg tctctctctc tgtaggagcc cgagcacctt ccggggcttc atgcagacct 4140
169 actatgacga ccacctgagg gacctgggtc cgctcaccaa ggcctgggtt ctggaatcca 4200
170 aagacagcct cttgaagaag acccacagcc tgtgccccag gcttgtctgt ggggacaagg 4260
171 accagggtta aaatgttcat aaaagccagg tgtggttgtg gcggtgtgct gtagtcccag 4320
172 ctactcagga ggctgaggta ggatgatggc ttgagccag gagtctgaga ccagcctggg 4380
173 caacacagcg agatctcttg ggggtaaaac aaaaagaaaa aaaaaagttc atacttctcc 4440
174 aataaataaa gtctcacctg tgtccctgtc tggatccttc cccagtgtgg ccagaaaaaa 4500
175 acccaccca ctgcctccca ggaatcaatg agtagaagag gtgacacctg atggggaagg 4560
176 aagagtggg aggtcgggaa gggatatcaag gaataacacc ctattgtggg cttgcgga 4620
177 atgggggact tcaaggcgtg tcagtttcag gaggtgagg gcaggagcgt ggggtggagtc 4680
178 agcaggctcc catgatggcc ctactgaga gcttcgccc tgtctctac aagctctgac 4740
179 tccattccca gtgggcaccc agcacctcca acccctccac agcccccaac ccagccttg 4800
180 tccgaggcga attctcagag tgaggggttc ctgtcacttg agagaagggt ccctgtgacg 4860
181 tgaccttggg ggacgtcatt gccctttctg tccccaccca cccctccgc agttctgttg 4920
182 gccaggactt tggcctagac aaaggatggg ggttgtggct gtggagcggg agtgggtctc 4980
183 aaccactata aatcctctct gtgcccgtcc ggagctgggt aggacagcct gccagagtct 5040
184 ggtaaagaa ggaactcagg tgcggggaca gggggggcgt agcagggaga gggcaaatag 5100
185 cgataaagca ggaattttaa gaggcacaa attagaagcc cgtgttgga ccatgactgt 5160
186 gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gagagagaga gagaggaga 5220
187 tggagtctcg ctatgtagcc caggctagac tcaaaactct gggctcaagc aatcctctg 5280
188 cctcagcctc ccagtagct gggactacag gtgcaccacc acactccaca aatcacagaa 5340
189 tttagaactg tagactatth gagcttctgc ttagagttag ggtggctgag gtggggagga 5400
190 tcccttgagc ccaggagttt gaggatgcag tgagctgtga tcttgccacc gtgttccagc 5460
191 ctgggtgaca gagaaccccc atttctaaaa aagagaaaaa aaaagggata ggtacaatgg 5520
192 ctcatgctcg taatcccagc actctgggag gccgaggcgg gtggatcact tgaggtcagg 5580
193 agttcgacac cagccttacc agcatgggtg aaccgcactc atactaaaaa tacaaaaatt 5640
194 ggcggggtgt ggtagcatat gcctgtaate ccagctatc cagaggctga gacaggagaa 5700
195 ttgcttgaac ccaggaagcg gaggttgacg tgagcccaga tcgtgccact gtactctagc 5760
196 ctgggtgaca gagcaagact cagtcttggc ggaaaaaaag aatgaaaaaa tttaaaaaac 5820
197 taaaaaagaa ctgtaggctg ggcgtgggtg cttacacttg taatccaaac gctttgggag 5880
198 gccaaggcaa acggatcact tgatgtcagg agttggagac cagcctggcc aacatgggtg 5940
199 aacccgtct ctactaaaaa taaaaaaatt agacaggcat ggtgggtgat gcttgtattt 6000
200 ccagttactc aggaggtgga ggcaggagaa tcgctgaac ccggaagaca gaggttgcg 6060
201 tgagccaaaa ttgcgccatc gcactccagc ctgggagaga gaacaagacc ttgtcttggg 6120
202 aaaaaaaaaa gaattgtaga ccatttgett gtgttcttcc tccggggatc agatctcacc 6180
203 ctcttctctg cgtacttct catctctac gttgtgatga tgatattgtg ccctgtgcat 6240
```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:19

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

```
204 gttcttcgtc accaaaagtg cctctctcat agagcagggtg agaactcagt gaggagatgc 6300
205 agggacatga ggtctgactt agggcagagc cctaaggtaa cacatttgat ctactgtagg 6360
206 tcttaaatgg tgtctgcaga gcacctccct gcactgactc agccttagca aagggcagag 6420
207 gctttgctgt gttccctgct gggcccagaa ctgttttaggt gctcaagaaa gccttctagg 6480
208 ctgggctcag tggctcacac ctgtactccc agcacccctgg ggaggccgag atgggaggat 6540
209 cgcttgagcc caggagtcc agaccagcct gggcaacaaa acaagtctcc catctctaca 6600
210 aaagaataaa aattagcagc tgggcatggt ggctcatgcc tgtaattcca gcactttggg 6660
211 agggcaaggc agggcaaatca ctlgagggtta ggagttcaag accagcctgg ccaacatggt 6720
212 gaaaccccat ctctactaaa aatacaaaaa tcagggtgggg cacagtgggt caagcctgta 6780
213 atcctagcac tttgggaggc caagggtggg ggatcacgag gtcagaagtt cgagaccagc 6840
214 ctggccagca tggtgaaacc ccactctctac taaaaataca aaatattagc cgggcatggt 6900
215 ggcagggtgt tgtgattcca gctccttggg aggctgaggc agaagaattg ctagaaccct 6960
216 ggaggcagag gttgcagtga gccgagaaca cgccactgca ctccagcctg ggtgacagag 7020
217 cgagactcca tctcaaaaaa tacgaaaaca aaaatcagcc ggggtggtggc ggggtgctgt 7080
218 aatcccagct actggggagg ctgaggcagg agaattgctt gaacctggga ggtgggggtt 7140
219 gcagtgcagc aagattgcac cactgcactc cagcctgggc aacagagtga gattccatct 7200
220 caaaaaagaa aaaaataata attaaaatgt taaaatcagg agtagaatca cagaatggtg 7260
221 gaaagtgcag cccaagaagg gggctgtgtc caagtcctat catgggaaac ttgactggga 7320
222 caccgagctc acacagagca ggatctcagt cccccccacc agagtggggc gtgaccacag 7380
223 gaacagccgc ctccagtcag cctgccacat gacacccct caatgttcca gg 7432
225 <210> SEQ ID NO: 3
226 <211> LENGTH: 12423
227 <212> TYPE: DNA
228 <213> ORGANISM: Homo Sapiens
230 <400> SEQUENCE: 3
232 tctatctgag tcttctctgc tgcagagaaa gccttctgt gacctcatcc tttcccctaa 60
233 atgttgaggaa atgctcctga gtctgtcct tgacacatac atcttctctg ggttgaggga 120
234 tggggactgg gacacatgct ttgggaaggg cagggtgcaga gtgatggggc tgacgggggtg 180
235 ggggaagcag ggggaggagc tgtccctctg aggccttttg gaatcggtctg tgccaggcat 240
236 cctcagccct ccagctaaag aacacagaga gccaaaagag gctactagag acaagaaggc 300
237 ctctcatggg ccactgcttg tgggggatgt cagcagtggg gaggagtga gacaggaagg 360
238 accgggagac tggatggaat tgctcccttc acacgggtcac acatagccac acatgggtcac 420
239 tgggaccaga gtcagctctg tctgggcagc caggccctca gtgcaagcca ccagcccatc 480
240 tggaggggat tagtgctccg gccaaacagg tcagctggcc ccttctctagc tggagcctac 540
241 tcaaccttgc caggaagtca gagagctgga caagtggagc ccagcctggg gaggtggaag 600
242 agagggagga tggagcatgg tgaagcacag gtggcctttt tggcagcccc agccttggct 660
243 ttggaacagt ctgggcagtg tgccaacccc tcttgccact gtcgtcccat tgacctcat 720
244 gaatgagttg cgaggcagtt accttcagcc tctatggat aaatattcga ggcccagaga 780
245 gggtaagaga cctgcctgcg acccctcagc acttctgttt ctctctgggg tcttgagggt 840
246 acaataaaga cccctaaggc ttcctcttct cgcaggaggt ccaggcgag ctgtggggga 900
247 ggtgcccctt ggtgtcttct gtccctgcag ccagtctgct ttctactcg cagctcctct 960
248 ctccctcctg ggatgagatg tgcaagcgat gatgggattc tgtaaatggg ttgggaagaa 1020
249 ggagttacct ccttaaaggg ttagttctcc caggagtgtc cgaatttcta aagggggcag 1080
250 ggtcccatat aaatctcact cagaagcagg attataagag ttctgcagc atcccttccc 1140
251 ctttgctggg cctctctgag tgtgcacct gttctaccag cggaacacct gcgggcccag 1200
252 gtcactggag acagggccat accgtctggg cggtcactta agtaacttca tcattctgag 1260
253 cccccccctt ccttatctga aagggtgggg gccatccacc cagctctcag ggctgttaag 1320
254 gtgactaaat gggataatgg ttgtatcatc cctgagcaaa gggatcaca gatgggaaga 1380
255 ttatcttagc tccgcaggga gccagatggg ctgtgaggga ggggtaagg cagggtgga 1440
```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/517,741DATE: 06/07/2005  
TIME: 13:33:20Input Set : D:\original seq\_prot.TXT  
Output Set: N:\CRF4\06062005\J517741.rawPlease Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 2047,2136,7481,7492,7502,7503,7505,7511  
Seq#:33; N Pos. 223,366  
Seq#:48; N Pos. 9,17,18,33,41,49,50,52,54,62,80,84,127,157,159,175,207,208  
Seq#:48; N Pos. 209,214,1181  
Seq#:74; N Pos. 1973,2249,2251,9316  
Seq#:94; N Pos. 289,833,1773,2369,2374,2386  
Seq#:106; N Pos. 1005,1015,2239,2651,2724  
Seq#:119; N Pos. 2411,2632,2656  
Seq#:269; N Pos. 2047,2136,7481,7492,7502,7503,7505,7511  
Seq#:270; N Pos. 659,665,667,668,678,689,6034,6123  
Seq#:311; N Pos. 223,366  
Seq#:312; N Pos. 2526,2669  
Seq#:341; N Pos. 9,17,18,33,41,49,50,52,54,62,80,84,127,157,159,175,207,208  
Seq#:341; N Pos. 209,214,1181  
Seq#:342; N Pos. 804,1771,1776,1777,1778,1810,1826,1828,1858,1901,1905,1923  
Seq#:342; N Pos. 1931,1933,1935,1936,1944,1952,1967,1968,1976  
Seq#:393; N Pos. 1973,2249,2251,9316  
Seq#:394; N Pos. 3761,10826,10828,11104  
Seq#:433; N Pos. 289,833,1773,2369,2374,2386  
Seq#:434; N Pos. 40,52,57,653,1593,2137  
Seq#:457; N Pos. 1005,1015,2239,2651,2724  
Seq#:458; N Pos. 1299,1372,1784,3008,3018  
Seq#:483; N Pos. 2411,2632,2656  
Seq#:484; N Pos. 436,460,681  
Seq#:543; N Pos. 2047,2136,7481,7492,7502,7503,7505,7511  
Seq#:544; N Pos. 659,665,667,668,678,689,6034,6123  
Seq#:585; N Pos. 223,366  
Seq#:586; N Pos. 2526,2669  
Seq#:615; N Pos. 9,17,18,33,41,49,50,52,54,62,80,84,127,157,159,175,207,208  
Seq#:615; N Pos. 209,214,1181  
Seq#:616; N Pos. 804,1771,1776,1777,1778,1810,1826,1828,1858,1901,1905,1923  
Seq#:616; N Pos. 1931,1933,1935,1936,1944,1952,1967,1968,1976  
Seq#:667; N Pos. 1973,2249,2251,9316  
Seq#:668; N Pos. 3761,10826,10828,11104  
Seq#:707; N Pos. 289,833,1773,2369,2374,2386  
Seq#:708; N Pos. 40,52,57,653,1593,2137  
Seq#:731; N Pos. 1005,1015,2239,2651,2724  
Seq#:732; N Pos. 1299,1372,1784,3008,3018  
Seq#:757; N Pos. 2411,2632,2656  
Seq#:758; N Pos. 436,460,681

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:20

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

L:22 M:270 C: Current Application Number differs, Replaced Current Application No  
L:22 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:1534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:2040  
M:341 Repeated in SeqNo=12  
L:3910 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:180  
M:341 Repeated in SeqNo=33  
L:5074 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0  
M:341 Repeated in SeqNo=48  
L:7624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:1920  
M:341 Repeated in SeqNo=74  
L:10004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 after pos.:240  
M:341 Repeated in SeqNo=94  
L:11406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:960  
M:341 Repeated in SeqNo=106  
L:12984 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:2400  
M:341 Repeated in SeqNo=119  
L:19094 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:269 after pos.:2040  
M:341 Repeated in SeqNo=269  
L:19223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:270 after pos.:600  
M:341 Repeated in SeqNo=270  
L:24003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:311 after pos.:180  
M:341 Repeated in SeqNo=311  
L:24107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:312 after pos.:2520  
M:341 Repeated in SeqNo=312  
L:26419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:341 after pos.:0  
M:341 Repeated in SeqNo=341  
L:26487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:342 after pos.:780  
M:341 Repeated in SeqNo=342  
L:31648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:393 after pos.:1920  
M:341 Repeated in SeqNo=393  
L:31912 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:394 after pos.:3720  
M:341 Repeated in SeqNo=394  
L:36556 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:433 after pos.:240  
M:341 Repeated in SeqNo=433  
L:36609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:434 after pos.:0  
M:341 Repeated in SeqNo=434  
L:39420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:457 after pos.:960  
M:341 Repeated in SeqNo=457  
L:39509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:458 after pos.:1260  
M:341 Repeated in SeqNo=458  
L:42630 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:483 after pos.:2400  
M:341 Repeated in SeqNo=483  
L:42665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:484 after pos.:420  
M:341 Repeated in SeqNo=484  
L:50032 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:543 after pos.:2040  
M:341 Repeated in SeqNo=543  
L:50161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:544 after pos.:600  
M:341 Repeated in SeqNo=544



VERIFICATION SUMMARY

PATENT APPLICATION: US/10/517,741

DATE: 06/07/2005

TIME: 13:33:20

Input Set : D:\original seq\_prot.TXT

Output Set: N:\CRF4\06062005\J517741.raw

L:54941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:585 after pos.:180  
M:341 Repeated in SeqNo=585  
L:55045 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:586 after pos.:2520  
M:341 Repeated in SeqNo=586